



Awareness and knowledge of epilepsy among students in a Malaysian university

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KEYWORDS

Epilepsy;
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Summary

Purpose: University students represent a better-educated group of society and it is important that they possess the correct knowledge and attitude towards healthcare issues. The aim of this study was to determine the current level of awareness and knowledge of epilepsy among students at a public university in Malaysia.

Methods: A survey was conducted within the main campus of the Universiti Sains Malaysia (USM), Penang, Malaysia. Students were required to answer a series of questions on awareness and knowledge of epilepsy. The questionnaire was written in the Malay language.

Results: Over a one-week period, 289 students completed the self-administered questionnaire. It was found that 86.5% of students had heard or read about epilepsy, while 55.6% had observed an epileptic seizure. Only 30.7% said that they knew the cause of epilepsy and 5.3% thought epilepsy was caused by evil spirits. Epilepsy was considered hereditary by 66.9% of respondents, while 4.9% thought it was contagious. Furthermore, 60% of students did not think that epilepsy was a shameful illness.

Conclusions: The findings indicate a generally favorable level of awareness and knowledge of epilepsy among students at the university. Nevertheless, there is still a need to improve certain aspects of knowledge and understanding of epilepsy among university students.

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Introduction

Knowledge and attitude among the general population regarding epilepsy vary widely between different countries. In the developed world, public

attitude towards epilepsy has greatly improved over the years resulting in more favorable social environment.^{1,2} On the other hand, cultural beliefs, superstition and lack of information about epilepsy still exist in developing countries. This leads to various social and medical morbidities.^{3–5}

A higher level of education correlates positively with awareness, knowledge and attitude concerning

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epilepsy. Community-based studies have reported that better-educated individuals offer more favorable opinions and display positive attitude.^{1,6–9} University students represent a better-educated section of society and are the future work force of the country. They are a group of individuals who have the potential to become role models for the society. Thus, it is important that they have the correct knowledge and appropriate attitude towards common healthcare issues.

Universiti Sains Malaysia (USM) is a public university, which promotes the “Healthy-Campus” program. The program aims to promote a healthy lifestyle through education among its campus communities.¹⁰ This article reports the findings of a survey conducted to determine awareness and knowledge of epilepsy among students at USM.

Methods

The study was carried out within the main campus of the Universiti Sains Malaysia located in the state of Penang, Malaysia. As part of the “Healthy-Campus” program, a survey was conducted among students using self-administered questionnaires. It was conducted over a one-week period in January 2002. A booth was set up near the university’s main library to facilitate the distribution and collection of questionnaires.

The questionnaire included questions on awareness and knowledge of epilepsy. Most of the questions were adapted from previous studies.^{11–15} Questions on perception of stigma were also added. They were: (a) Do you think an epileptic person is dangerous to others? (b) Do you think epilepsy is a shameful illness? (c) If you had epilepsy, would you conceal it from others? Students were required to answer “Yes”, “No” or “Don’t know” where appropriate. The questionnaire was written in the Malay language, which is the official language of Malaysia. It was previously given to 10 students to test for clarity of language.

Analysis was based on the total number of students who answered each particular question. Descriptive data are presented as frequency (percentages) and mean (S.D.) where appropriate.

Table 1 Demographic characteristics.

Age (<i>n</i> = 288)	
Mean ± S.D. (years)	21.8 ± 2.5
Range (years)	19–39
Gender (<i>n</i> = 283)	
Male	64 (22.6%)
Female	219 (77.4%)
Ethnic group (<i>n</i> = 285)	
Malay	173 (60.7%)
Chinese	74 (26.0%)
Indian	19 (6.7%)
Others	19 (6.7%)

Results

The questionnaire was answered by 289 students during the survey period. Table 1 shows the demographic data of respondents. Respondents ranged in age from 19 to 39 years. Except for one postgraduate student, the majority were undergraduates from different schools of study. About 20% of the respondents were first-year students. Second- and third-year students constituted 34.7 and 35.5% of respondents, respectively. Female students outnumbered male students by a 3.4:1 ratio. Malaysia is a multiracial country with Malay, Chinese and Indian forming the three major ethnic groups. About 60% of the respondents in the survey were Malay.

Awareness and previous experience of epilepsy

Most of the respondents were quite familiar with epilepsy. The majority of students said they had either heard or read about epilepsy and more than half said they had seen an epileptic seizure. Table 2 summarizes the responses on awareness and previous experience of epilepsy.

Knowledge of epilepsy

Only about 30% of students thought they knew the cause of epilepsy but most agreed that epilepsy was not caused by evil spirits. Table 3 shows the

Table 2 Questions about awareness and previous experience of epilepsy.

Questions	<i>n</i> (%)	
	Yes	No
Have you ever heard or read about epilepsy?	250 (86.5)	39 (13.5)
Have you ever attended a lecture or seminar on epilepsy?	7 (2.4)	282 (97.6)
Anyone in your family that you know has epilepsy?	18 (6.3)	269 (93.7)
Have you ever seen anyone having epileptic attack?	159 (55.6)	127 (44.4)
Have you ever done first-aid seizure management?	38 (13.1)	251 (86.9)

Table 3 Knowledge of epilepsy.

Questions	n (%)		
	Yes	No	Don't know
Do you know the cause of epilepsy?	88 (30.7)	199 (69.3)	—
Do you think epilepsy is contagious?	14 (4.9)	241 (84.0)	32 (11.1)
Do you think epilepsy is hereditary?	192 (66.9)	45 (15.7)	50 (17.4)
Do you think epilepsy is a form of mental illness?	114 (39.7)	97 (33.8)	76 (26.5)
Do you think epilepsy is caused by evil spirits?	15 (5.3)	211 (74.6)	57 (20.1)
Do you think people can die from seizures?	190 (66.7)	24 (8.4)	71 (24.9)
Do you think epilepsy can be cured?	132 (46.3)	41 (14.4)	112 (39.3)
Do you think people with epilepsy should not participate in sports activities?	33 (11.7)	176 (62.4)	73 (25.9)
Do you know how to perform first-aid seizure management?	57 (19.7)	232 (80.3)	—

responses from students regarding knowledge of epilepsy, where 67% of respondents believed that epilepsy was acquired through inheritance. Less than half of the respondents (46.3%) thought that epilepsy could be cured. About 20% said they knew how to perform first-aid seizure management.

Perception of stigma

Among the respondents, 60% said they did not think epilepsy is a shameful illness, 70% said they would not conceal a diagnosis of epilepsy from other people and 34% of respondents thought that a person with epilepsy is a danger to others.

Discussion

This university-based study shows that awareness of epilepsy among students is similar to those reported among the general public in community-based studies.^{1,6,7,9} These findings are also consistent with a study among a similar group of Canadian college students.¹⁶ However, it would appear that this awareness in our student population does not come from formal education because only 2% of them had attended a lecture or seminar on the subject. A study conducted among adolescents attending high schools showed that although 52% of them had read or heard about epilepsy, only 5% had attended a presentation or lecture on epilepsy.¹⁷ Similarly, Bannon et al.¹³ reported that school teachers had an adequate awareness of epilepsy despite the fact that only 3% had attended courses on epilepsy. This suggests that there is little formal education on epilepsy available even in the school setting.

A high proportion of students (70%) said they did not know the cause of epilepsy. This figure is relatively higher compared to the findings from studies among the general public, which ranges from 27 to

44%.^{1,6,7,9,11} The differences may be due to the way the question was presented. Previous studies have used an open-ended type of question (What do you think is the cause of epilepsy?), whereas in our study a close-ended type was used (Do you know the cause of epilepsy?). Similar studies employing a close-ended type of question also reported a higher percentage of respondents, who did not know the cause of epilepsy.^{12,14}

It was surprising that about 5% of students thought that epilepsy was caused by evil spirits. Similarly, several studies conducted in developing countries have reported that both patients and the general population still believe that seizures are due to possession by evil spirits.^{3,5,18} This belief has been suggested to cause a large treatment gap in the population since patients will seek traditional or alternative treatment despite the availability of modern therapies.⁴

Only about 30% of students could differentiate between mental illness and epilepsy. Although less frequently used nowadays, epilepsy in local Malay term is also known as “Gila Babi”. “Gila” means insanity and “Babi” means pig; thus, literally translated, the term means “pig insanity”. Similar attributes have been described by the Chinese as “goat or sheep insanity”.^{8,19} This misconception about insanity or mental illness and epilepsy has been widely reported among less developed countries.^{1,11,12,20}

Responses to other aspects of knowledge are generally quite favorable in this group of students. About 20% said they knew how to respond to a seizure and 13% said they had actually done first-aid seizure management. However, it is not clear whether their approach would be medically appropriate. In Thailand, although 45% of school teachers said they knew how to perform first aid, many suggested potentially harmful interventions.¹⁵ In another study conducted in Hong Kong, 52% of respondents believed that putting an object into patient's mouth during seizure to

prevent injury was appropriate.⁸ Therefore, it may also be possible that these students would have some degree of misunderstanding about what is considered medically acceptable first-aid seizure management. Further studies could look into this issue and efforts should be made to disseminate the correct information on first-aid management.

University students live in a close-knit community. Many reside in campus and they interact with each other on a daily basis throughout their study programs. Having an appropriate attitude towards people with medical illnesses like epilepsy will create a learning environment that is conducive for everyone. Most students in our study knew that epilepsy is not contagious. In addition, about 60% also knew that people with epilepsy should not be restricted to participate in sports activities. It is reassuring that respondents in this study did not view epilepsy as a shameful condition. The fact that 70% of them said they would not hide the condition from others reinforces this positive perception relating to stigma. These findings would indicate that most respondents do not hold a negative view of those with epilepsy. Despite these favorable attitudes, about 30% of students viewed a person with epilepsy as dangerous. This figure is relatively higher compared to previously reported studies.^{8,17}

The population of students in the university changes every year. Continuous efforts should be made to increase their awareness and knowledge regarding epilepsy, thus inculcating positive attitudes towards people with epilepsy. In a university setting like USM, this can be easily achieved through lectures, seminars, courses or awareness campaigns. Favorable perceptions towards people with epilepsy would be beneficial towards building better relationships within learning and working environments.

Conclusions

This survey reveals a favorable level of awareness and knowledge of epilepsy among students in Universiti Sains Malaysia. They have a more tolerant attitude towards perceptions of stigma. These findings also indicate the need for improvement in certain aspects of knowledge and understanding, perhaps through formal education in a university setting.

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